External Data Interface Standards (EDIS) Exchange
Program and Description

November 19, 2009
EDIS Exchange Meeting Objectives

Mary Herrmann, Office of Public Engagement

- Introduce the USCIS Transformation effort
- Introduce the External Data Interface Standards (EDIS) required to transmit benefit request data from system to system as part of the USCIS Transformation
- Discuss the key role of stakeholders in the development of these standards including the type of input needed and plan to work together moving forward
EDIS Exchange Meeting Agenda

- Setting the context for EDIS: What is the USCIS Transformation Effort?
- Overview of EDIS
- Technical Examples for Stakeholder Input
- Questions & Answers
Setting the Context: What is USCIS Transformation?

Leslie Tritten, Office of Transformation Coordination
What is the USCIS Transformation effort?

- A multi-year effort to improve the way USCIS operates by moving the organization from manual, paper-based processes to an easy-to-use, electronic system.
- More transparent organization that simplifies the process of applying for and delivering benefits.
- Updated IT systems to deliver enhanced customer service.
- Enhanced way to deliver services to immigration benefit seekers, reducing the burden on stakeholders.
- These changes will be developed and rolled out incrementally over several years, but the development of standards start now.

*USCIS Transformation will change the way the Agency does business to create a more transparent, efficient and customer focused organization.*
What are the benefits of Transformation?

- **Efficiency:** Many of today’s processes will be revised to reduce the burden on stakeholders (e.g., customers, employees).

- **Transparency:** Users will have easier access to important information in the new system.

- **Consistency:** The new system will connect with other agency (e.g., DOS, DOL) systems to exchange and validate data.

- **Integrity:** Increased precision with identity management. Electronic submission of applications increases security and privacy.

- **Flexibility:** Allows customers to submit, manage, and track their benefit applications in one place through secure, personalized accounts.

- **User-Friendly:** The new system is designed around user (e.g., customer and employee) needs and preferences.

**USCIS Transformation will strengthen the Agency’s mission and meet the demands of the changing immigration environment.**
Under USCIS Transformation, third parties can directly submit forms through system to system interfaces.

Current State

- **Paper Forms**
  - Completed form with payment is mailed to USCIS

- **On-line Forms**
  - Completed on-line form with electronic payment is transmitted to USCIS. Forms printed by USCIS and held until additional mailed documentation is received

Transformed State

- **Paper Form**
  - This form is still an option in the transformed state.

- **USCIS Portal**
  - Complete form on-line and submit to USCIS with payment via USCIS.gov.

- **System to System Data Transfers**
  - Complete form via a third party system and directly transmit to USCIS with payment.
  - **External Data Interface Standards (EDIS)** are technical requirements for these transmissions.

**External Data Interface Standards provide guidelines for system to system e-Filing transmissions.**
USCIS needs input from stakeholders to define EDIS guidelines.

- USCIS will develop the business requirements and initial technical and data standards.
- Input is needed from stakeholders in the areas of:
  - Message types
  - Data types and attributes
  - Business rules and processes
  - Registration and User Support
  - Testing and Certification

**USCIS will collect this input for EDIS through a series of “EDIS Exchange” meetings where USCIS will gather input on key concepts and ideas.**
Overview of EDIS

Diane Kuhla, Team IBM, USCIS Transformation Program
EDIS will provide comprehensive guidelines for system-to-system e-Filing.

- EDIS is a Technical Standard for USCIS e-Filing, governing the type and format of data in messages sent between USCIS and external systems.

- EDIS is documented as a collection of technical specifications, models and background information – called an “Interface Exchange Package Document” (IEPD).

- All online electronic messages exchanged between USCIS and external systems using the e-Filing interface will adhere to EDIS.

- USCIS will create and populate the initial EDIS IEPD according to existing USCIS and Federal Government standards, based in large part on the “National Information Exchange Model” (NIEM).

- NIEM is a widely-used Government standard for information exchange. Find more information about this data exchange standard, at NIEM.gov.
e-Filing Concept of Operations

Sample Concept of Operations for System to System e-Filing

- **Immigration Practitioner**
  - 3rd Party Case Management Software
  - Service Client
- **Internet**
  - Benefit Request
  - Transmission Status
- **EDIS**
  - Message Standard
  - USCIS E-Filing Technical Requirements and Processes
- **USCIS**
  - USCIS Application Systems
  - e-Filing Service

Create SOA/XML-based interfaces to interact with USCIS, using EDIS technical standards

Implement an Internet accessible, secure SOA/XML-based interface using EDIS technical standards
EDIS-based e-Filing will be available to all external parties who complete registration with USCIS.

- Use of the EDIS-based e-Filing secure interface for Internet-based filing of USCIS benefit requests is open to any and all constituents. Some general policies and guidance will apply – details are TBD.

- An external system interfacing with the e-Filing Service will require registration with USCIS for system-level Authentication and Provisioning.

- All EDIS-formatted messages will include system credentials.

- All external systems or services connecting to the e-Filing interface may do so only after registration, completion of an Interconnection Security Agreement (ISA), and completion of Certification Testing.
Technical Examples for Stakeholder Input
USCIS will document EDIS as an “Information Exchange Package Document” (IEPD) based on a NIEM standard template.

1. Purpose and Scope – Narrative
2. IEPD Catalogue – List of Artifacts
3. IEPD Metadata

4. Exchange Files (XML Schemas)
   - NIEM Subset Schema
   - Wantlist
   - Root Document Schema (Minimal Subset)
   - Constraint Schema
   - Extension Schema
   - Sample XML Instance
   - Sample Stylesheet

USCIS will host collaborative sessions to discuss these topics in early 2010.

5. Documentation
   - CONOPS
   - Domain Model
   - Business Rules
   - Security and Privacy
   - Other Background and Requirements
Information will be shared between USCIS and external systems as XML messages.

<table>
<thead>
<tr>
<th>User Messages</th>
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</table>
| **Benefit Request – XML Messages**  
Data and supporting evidence required per policies and business rules related to the benefit(s) requested |
| **Transmission Status – XML Messages**  
Correspondence associated with the benefit request regarding status or outcome of the transmission |

<table>
<thead>
<tr>
<th>System Messages</th>
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| **Other XML System Messages**  
System-level flags and Indicators regarding the status of the system-to-system message exchanges, authentication and security credentials |
## EDIS Domain Model

<table>
<thead>
<tr>
<th>E-Filing Package Metadata</th>
<th>Account Data</th>
<th>Benefit Request Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contained in the “package” or “wrapper” portion of the XML messages, that defines and describes the core data within.</td>
<td>Required to establish an individual or organizational account, including personally-identifiable information (PII).</td>
<td>Required to fulfill the benefit request business rules, per benefit type requested.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment Data</th>
<th>Fee Waiver Data</th>
<th>Evidence Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required for fulfillment of payment and fee processing requirements, per benefit type requested.</td>
<td>Required to fulfill “fee waiver” requirements.</td>
<td>Required for evidentiary support of the benefit request types; this will include both digital objects of various formats and supporting metadata.</td>
</tr>
</tbody>
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The “Domain Model” for the EDIS specification includes the core information types EDIS will address. These information types will be further decomposed into data entities.
E-Filing Business Rules will be reflected in the EDIS IEPD.

<table>
<thead>
<tr>
<th>Completeness and Acceptability</th>
<th>Data Consistency/Lookup Tables</th>
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</thead>
<tbody>
<tr>
<td>Enforced both within the EDIS specification (as part of the field-level validations) and upon initial intake processing. Requests not meeting these checks will be rejected.</td>
<td>Enforced in the EDIS specification, including standards for country codes, state codes, and benefit selection values.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Cross-Field Validations</th>
<th>Data Quality/Basic Standards</th>
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<tbody>
<tr>
<td>Enforced automatically upon intake of the benefit request. External system developers and users of the EDIS standard will be informed regarding the rule checks that will be standardized.</td>
<td>Enforced in the EDIS specification, compliant with most existing public and government standards, many of which are already included in the NIEM standard (i.e. zip code field lengths)</td>
</tr>
</tbody>
</table>

USCIS will develop business rules according to business, functional, data quality, and consistency requirements.
Proposed Next Steps for EDIS Participation

- **Review EDIS-related notices on USCIS.gov** for upcoming EDIS Exchange collaborative sessions. Materials and topics will be posted before the sessions and updated following each session. Invitations for collaborative sessions will also be distributed via email to listserve.

- **Review your own initiatives and schedules** for technology programs that may leverage or intersect with this one. Formulate questions and comments, and send them to us – at Transform.EDIS@DHS.gov.

- **Additional input may be needed throughout the life of the Transformation program with details provided as they become available.**

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<thead>
<tr>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>Initial EDIS Exchange</td>
<td>Follow Up EDIS Exchanges</td>
<td>Publish EDIS Specs v01</td>
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<tr>
<td></td>
<td>System to System e-Filing</td>
<td>Implement</td>
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<td></td>
<td>Develop/Test</td>
<td></td>
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<tr>
<td>USCIS/Stakeholder Collaboration</td>
<td>USCIS System Development</td>
<td>Third Party Certification Testing</td>
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USCIS will continue to support stakeholders throughout all phases of e-Filing development.

During EDIS Specification Development and e-Filing Interfaces System Development

- Information provided via EDIS Exchanges; information will be posted via USCIS.gov.
- Registration and support for participation will be made available.

During System-to-System e-Filing and EDIS Certification Testing

- Emails and meetings will keep participants informed; information will be posted via USCIS.gov.
- Authorized users will be provided support for certification testing processes.

Post Implementation of System-to-System e-Filing Capabilities

- Emails and meetings will keep participants informed; information will be posted via USCIS.gov.
Question And Answers